

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior revisions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A ~~computer implemented~~ **computer readable storage medium having a computer program stored thereon for implementing** a mapping method of classifying a plurality of informational items in an information retrieval system **having a database, said computer program comprising a set of instructions for implementing said** the method comprising the steps of:

identifying a first informational item;

identifying a second informational item;

dynamically updating at least one relationship field defining similarities of respective characteristic between said first informational item and said second informational item in an information retrieval session, wherein said fields are used for representing a data item classification process comprising the combination of one or more algorithms working in conjunction to produce an output simulating a non-conventional Bayesian-type Belief Network;

~~applying an ensemble of algorithms to determine an integer weight relationship link between said first and second informational items;~~

detecting an access of said first informational item;

detecting an access of said second informational item;

establishing that a relationship link exists between said first informational item and said second informational item;

determining an integer-value weight based on the historical frequency of said relationship link;

applying an ensemble of the combination of one or more said algorithms to said first and second informational items relative to said integer-value weight of said relationship link to produce an output;

assigning said integer-value weight to the said output of said ~~ensemble of~~ algorithms; and

storing the said output of said ensemble of algorithms being at least partially indicative of the classification of said informational items.

2. (Currently amended) The method computer readable storage medium as recited in claim 1 wherein said steps of identifying and detecting the second informational item includes identifying and detecting of a plurality of informational items.

3. (Cancelled)

4. (Currently amended) The method computer readable storage medium as recited in claim 2, further comprising the step of:

applying an algorithm for data aging wherein the usage of the relationship link is monitored and used as feed back for the integer-value weight associated with the relationship link.

5. (Currently amended) The method computer readable storage medium as recited in claim 4, further comprising the step of:

applying a pruning algorithm wherein external information regarding the usefulness of at least one relationship link is utilized to modify the integer-value weight or existence of a recorded relationship link.

6. (Currently amended) The method computer readable storage medium as recited in claim 5, wherein said pruning algorithm performs the removal of irrelevant relationship links subsequent to the data aging feedback process.

7. (Currently amended) The method computer readable storage medium as recited in claim 5, wherein said pruning algorithm makes use of a user determined feedback of the usefulness of a relationship link.

8. (Currently amended) The method computer readable storage medium as recited in claim 2, wherein said ~~ensemble~~ includes a plurality of algorithms is used and wherein said relationship link integer-value weight is adjusted in direct proportion to the number of said algorithms used to ~~within said ensemble of algorithms that~~ determine the existence of said relationship link.

9. (Currently amended) The method computer readable storage medium as recited in claim 2, wherein said relationship link is positioned in a list in direct proportion to the degree of consensus among said ~~ensemble of~~ algorithms.

10. (Currently amended) The method computer readable storage medium as recited in claim 2, ~~wherein said ensemble includes a plurality of algorithms and wherein each algorithm~~ used ~~within said ensemble of algorithms~~ runs independently of all other algorithms.

11. (Currently amended) The method computer readable storage medium as recited in claim 2, further comprising the step of merging the outputs of said ~~ensemble of~~ algorithms.

12. (Currently amended) The method computer readable storage medium as recited in claim 2, further comprising the step of recording said relationship link in a said non-Bayesian-type Belief Network network.

13. (Cancelled)

14. (Currently amended) An apparatus A computer readable storage medium having a computer program stored thereon for providing classification of informational items in an information retrieval system having a database, said computer program having a network structure which allows cycles comprising:

means for detecting the access of informational items;

means for dynamically updating at least one relationship field defining similarities of respective characteristic between said first informational item and said second informational item in an information retrieval session, wherein said fields are used for representing a data item classification process;

means for applying said data item classification process comprising the combination of one or more algorithms working in conjunction to produce an output simulating a non-conventional Bayesian-type Belief Network;

~~means for applying an ensemble of algorithms to the accessed informational~~
items;

means for establishing the existence of relationship links between said informational items to enhance the effectiveness of said information retrieval system;

means for weighting said relationship links, said weight being directly proportional to the outcome of ~~said ensemble of~~ the combination of one or more said algorithms; and

means for storing said relationship links and relationship link weights.

15. (Currently amended) The apparatus computer readable storage medium of claim 14 including:

means for aging said relationship links; and

means for pruning said relationship links.

16. (Currently amended) The apparatus computer readable storage medium of claim 15 including means for merging the resulting output of said ~~ensemble of~~ algorithms into a knowledge network.

17. (Original) A computer readable storage medium having stored thereon a computer program for implementing a method of classifying a plurality of information items in an information retrieval system, said computer program comprising a set of instructions for implementing the steps recited in claim 2.

18. (Currently amended) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for clustering the resulting output of said ~~ensemble of~~ algorithms into a knowledge network.

19. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through weighting of said relationship links.

20. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through pruning of said relationship links.

21. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through aging of said relationship links.

22. (Original) The computer readable storage medium according to claim 17, wherein said computer program further comprises one or more instructions for improving the usefulness of said relationship links through weighting, pruning and aging of said relationship links.

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Currently amended) The ~~method~~ **computer readable storage medium** as recited in claim 4, wherein said algorithm for data aging runs as a function of traffic load to age the relationship links according to relevance of the relationship links.

28. (Currently amended) A ~~computer-implemented~~ **computer readable storage medium having a computer program stored thereon for implementing a** mapping method of classifying a plurality of informational items in an information retrieval system **having a database, said computer program comprising a set of instructions for implementing said** the method comprising the steps of:

detecting an access of a first informational item;

detecting an access of a second informational item;

establishing that a relationship link exists between said first informational item and said second informational item;

dynamically updating at least one relationship field defining similarities of respective characteristic between said first informational item and said second informational item in an information retrieval session, wherein said fields are used for representing a data item classification process comprising the combination of one or more algorithms working in conjunction to produce an output simulating a non-conventional Bayesian-type Belief Network;

~~determining an integer value weight based on the historical frequency of said relationship link;~~

~~applying an ensemble of clustering~~ **the combination of one or more said** algorithms directly proportional to said integer-value weight of said relationship link; and

combining and merging the output of said ~~ensemble of clustering~~ **said** algorithms to pre-populate the informational retrieval system; and

storing the **said** output of said ~~ensemble of clustering algorithms~~ **being at least partially indicative of the classification of said informational items.**